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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/754,251	01/09/2004	William R. McDonnell	MCDW 8238D1	7751
1688	7590	11/08/2005	EXAMINER	
POLSTER, LIEDER, WOODRUFF & LUCCHESI 12412 POWERS COURT DRIVE SUITE 200 ST. LOUIS, MO 63131-3615			HOLZEN, STEPHEN A	
			ART UNIT	PAPER NUMBER
			3644	
DATE MAILED: 11/08/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/754,251

Applicant(s)

MCDONNELL, WILLIAM R.

Examiner

Stephen A. Holzen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-19,21,22,25-32,34-42 and 44-53 is/are pending in the application.
- 4a) Of the above claim(s) 14,25-32,40,47 and 48 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-13,15-19,21,22,34-39,41,42,44-46 and 49-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Att.#1 & Supp 892

DETAILED ACTION

1. The affidavit filed on 3/7/2005 under 37 CFR 1.131 is sufficient to overcome the McGeer (6,264,140) reference.

Election/Restrictions

2. Applicant has argued that a restriction is improper because the applicant is attempting to provoke interference. However restriction practice and that of interference are separate issues. Therefor these arguments are moot.
3. Applicant has argued that there is no burden on the office to search the non-elected claims, since these claims have already received an action on the merits. The examiner reminds the applicant that the office can require an election between independent and distinct invention at any time during prosecution so long as there claims are not under a final action. (See MPEP 811 and 37 CFR 1.142(a) and MPEP 811.02.
4. The applicant has not specifically stated his response to the election requirements of ¶9 in the Office Action mailed 5/4/2005. After a study of the claims, the examiner has determined that the applicant is claiming "9f". In some of the claims, the applicant has amended out the phrase "generally vertical orientation" and therefor relying on the "broader" language "normal". It appears that applicant has further argued and amended the claims in such a way that "normal" is generic to both "vertical" and "angle relative". The examiner finds this argument persuasive and agrees that claims, 3-13, 15-19, 21, 22, 34-39, 41, 42, 44-46, 49-53 read on the generic "normal" language

5. Applicant has argued that "linear" is generic to "curvilinear". The examiner disagrees. A "Curvilinear" shape is not also "linear". A curve line does not equal a straight line. However, the applicant has deleted all references to "curvilinear" in the claims. Therefor these arguments are moot.

6. Regarding the prior art arguments:

a. Reuter does not disclose a capturing device that is a separate element from the wing and is not positioned laterally of the fuselage centerline. The examiner agrees with applicant's arguments regarding claim 19 and Reuter.

b. While the examiner does not necessarily agree with applicant's interpretation of the Uhl reference the examiner does agree that the aircraft is not "capable" of deflecting the line (illustrated in Figure 2) in a lateral direction with respect to the direction of flight. Therefore this rejection has been withdrawn.

c. The amendment and arguments with respect to Bellville, Geraldson and Richardson have overcome the 102(b) rejections. Since they do not teach an aircraft having a capturing device that works in concert with a deflection device.

7. Claims 1, 3-19, 21, 22, 25-32, 34-42, 44-53 are pending.

8. Claims 14, 25-32, 40, 47, 48 have been withdrawn.

9. Claims 1, 3-13, 15-19, 21, 22, 34-39, 41, 42, 44-46, 49-53 have been examined.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1, 3, 8-13, 15-19, 21, 34-37, 39, 41, 42, 44, 46, 49, 51-53 are rejected under 35 U.S.C. 102(b) as being anticipated by “Mini RPV Recovery System Conceptual Study” by Teledyne Ryan Aeronautical (Teledyne).

Figures 43, 44, 79 disclose an aircraft having a capturing device (i.e. a wing) that deflects an arrestment line outboard to a hook. Figure 28 teaches energy absorbers and a net that has both the top and the bottom ends thereof tied to the same base. The arrestment line can be held by a plurality of different apparatus such as a balloon, a self propelled rotor, a mast, a slender pole, a moving carousel. It should be understood that where the applicant has claimed the angle between the wing and the arrestment line the examiner asserts that the angle between these two elements is approximately 90 degrees, and that since the hook of Teledyne is on the outer edge of the wing it is therefor “more than twenty percent of the length of the leading edge”. It should be appreciated that Figure 79 teaches “knots” that are configured to restrict sliding of the aircraft along the line after the line is guided into connection with the hook.

Re- Claim 9: Although Teledyne does not disclose a craft that is supposed to deflect the arrestment line inboard towards the fuselage, the examiner asserts that no structural limitation or element has been specifically and positively recited. Therefore Teledyne reads on this claim because it is

possible for the craft of Teledyne to make a last second maneuver or alter the angle of yaw to force the arrestment to deflect in a direction inboard.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 4, 22, 38, 45, are rejected under 35 U.S.C. 103(a) as being unpatentable over Teledyne in view of Tucker (1,748,663). Teledyne does not disclose a latch or cleat to retain the line after initially capturing it. Tucker however teaches that it is well known in the art to use a latch (#54, figure 7) to retrain a line after intercepting it. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a latch in combination with a hook to increase the effectiveness and confidence of a safe arrestment line capture.

14. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Teledyne in view of Tucker. Figures 43, 44, 79 disclose an aircraft having a capturing device (i.e. a hook on the end of the wing) that deflects an arrestment line outboard to a hook. Figure 28 teaches energy absorbers and a net that has both the top and the bottom ends thereof tied to the same base. The arrestment line can be held by a plurality of different apparatus such as a balloon, a self propelled rotor, a mast, a

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slender pole, a moving carousel. It should be understood that where the applicant has claimed the angle between the wing and the arrestment line the examiner asserts that the angle between these two elements is approximately 90 degrees, and that since the hook of Teledyne is on the outer edge of the wing it is therefore "more than twenty percent of the length of the leading edge". It should be appreciated that Figure 79 teaches "knots" that are configured to restrict sliding of the aircraft along the line after the line is guided into connection with the hook.

Teledyne does not disclose a latch or cleat to retain the line after initially capturing it.

Tucker teaches, however, that it is well known in the art to use a latch (#54, figure 7) to restrain a line after intercepting it. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a latch in combination with a hook to increase the effectiveness and confidence of a safe arrestment line capture.

15. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teledyne in view of ordinary skill in the art. Teledyne only discloses a hook on the wing tip that projects forward of the wing. Teledyne does not disclose a hook that is located inboard of the wingtips. It would have been obvious to one having ordinary skill in the art at the time the invention was made to locate the hooks at any location inboard of the wing tips since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

17. Mr. Robinson's December 1977 Thesis Titled "Dynamic Analysis of a Carousel remotely piloted vehicle recovery system" does qualify as prior art since the Thesis was on file at a library open to the public more than one year prior to the filing of the instant application. That Mr. Robinson is silent with respect to the manner in which the aircraft and arrestment lines connect to each other. There is no necessarily a capture device associated with the aircraft of Mr. Robinson.

18. "Ames Builds advance Yawed wing RPV" does disclose a wing with a hook attached at its tip (although difficult to see). This reference does qualify as prior art, and could be used in a rejection.

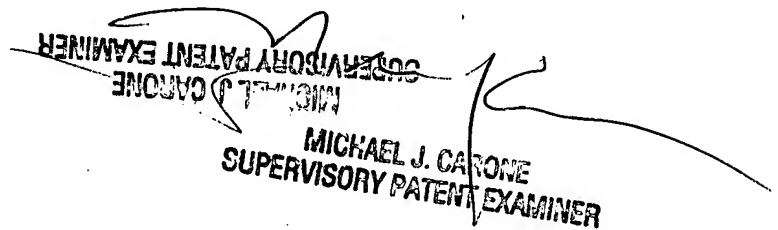
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen A. Holzen whose telephone number is 571-272-6903. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 571-272-7045. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sah


MICHAEL J. CARONE
SUPERVISORY PATENT EXAMINER

October 24, 2005

Dear Mr. Holzen,

This is in response to your inquiry in which you requested a certification of the availability of information from the National Technical Information Service (NTIS).

NTIS announced the document "*Mini-RPV Recovery System Conceptual Study*" (AD-A046 177)" through the following means:

1. The bibliographic reference/abstract was added to the NTIS Bibliographic Database on the Dialog (Knight-Ridder) online information retrieval service as part of issue 7802 (on or about January 13, 1978).
2. The bibliographic reference/abstract was published in our semi-monthly publication, Government Reports Announcements and Index (GRA&I) issue number 7802 which carried a cover date of January 2, 1978. Each issue would have been distributed to subscribers no more than one week after the cover date.

NTIS accepts orders for any publication as soon as customers find it in the NTIS Bibliographic Database. However, orders are not shipped until the bibliographic reference/abstract is published in GRA&I.

**Supplemental
Notice of References Cited**

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Applicant(s)/Patent Under
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MCDONNELL, WILLIAM R.

Examiner

Stephen A. Holzen

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-1,499,472 A	07-1924	PRATT HAZEN C	244/110G
	B	US-1,556,348 A	10-1925	RAY WILLIAM A; et. al.	244/110G
	C	US-2,333,559 A	11-1943	GRADY DANIEL W; et. al.	242/379.2
	D	US-2,380,702 A	07-1945	PERSONS MERIC C	244/110G
	E	US-2,435,197 A	02-1948	BRODIE JAMES H	244/110F
	F	US-2,435,197 A	02-1948	BRODIE JAMES H	244/110F
	G	US-4,311,290 A	01-1982	Koper, Kenneth T.	244/110R
	H	US-4,566,658 A	01-1986	DiGiovanniantonio et al.	244/110R
	I	US-4,753,400 A	06-1988	Reuter et al.	244/110R
	J	US-4,979,701 A	12-1990	Colarik et al.	244/110C
	K	US-5,054,717 A	10-1991	Taylor, Douglas R.	244/110F
	L	US-6,264,140 B1	07-2001	McGeer et al.	244/110F
	M	US-6,874,729 B1	04-2005	McDonnell, William R.	244/63

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	A	US-1,731,091 A	10-1929	CLAYTON BELLEVILLE HARRY	244/110F
	B	US-1,748,663 A	02-1930	TUCKER ELDRED F	244/63
	C	US-1,836,010 A	12-1931	AUDRAIN CONSTANT A	244/63
	D	US-1,925,212 A	09-1933	STEIBER THEODORE E	244/63
	E	US-2,365,778 A	12-1944	SCHWAB MARTIN C	89/1.11
	F	US-2,488,050 A	11-1949	BRODIE JAMES H	244/110F
	G	US-2,526,348 A	10-1950	ARTHUR GOUGE	114/230.3
	H	US-3,069,118 A	12-1962	JEAN-PAUL BERNARD	244/110R
	I	US-RE25,406 E	06-1963	Byrne	244/110R
	J	US-3,454,244 A	07-1969	WALANDER KARL OVE TORGNEY	244/110R
	K	US-3,484,061 A	12-1969	NIEMKIEWICZ IGNATIUS JOHN	244/110R
	L	US-4,790,497 A	12-1988	Yoffe, Meir	244/115
	M	US-5,039,034 A	08-1991	Burgess et al.	244/110F

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	A	US-968,339 A	08-1910	Geraldson	244/63
	B	US-1,634,964 A	07-1927	STEINMETZ JOSEPH A	244/115
	C	US-1,940,030 A	12-1933	STEIBER THEODORE E	244/63
	D	US-2,347,561 A	04-1944	HOWARD DONALD K; et. al.	434/372
	E	US-2,364,527 A	12-1944	HAYGOOD CARROLL M	244/110F
	F	US-2,448,209 A	08-1948	BOYER TAYLOR M; et. al.	244/110F
	G	US-2,814,453 A	11-1957	TRIMBLE JR GEORGE S; et. al.	244/63
	H	US-2,919,871 A	01-1960	SORENSEN KRESTEN T	244/110C
	I	US-3,827,660 A	08-1974	Doolittle, Donald B.	244/110C
	J	US-4,143,840 A	03-1979	Bernard et al.	244/110C
	K	US-4,147,317 A	04-1979	Mayhew et al.	244/116
	L	US-5,007,875 A	04-1991	Dasa, Madhava	446/66
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	C	US-1,624,188 A	04-1927	Simon	244/110F
	D	US-1,680,473 A	08-1928	ORIN PARKER	244/110F
	E	US-1,686,298 A	10-1928	UHL GEORGE A	244/63
	F	US-1,737,483 A	11-1929	VERRET NICHOLAS J	244/63
	G	US-1,738,261 A	12-1929	PERKINS WILLIS J	244/110F
	H	US-1,756,747 A	04-1930	LIONEL HOLLAND	244/63
	I	US-1,842,432 A	01-1932	STANTON SAMUEL A	244/63
	J	US-1,869,506 A	08-1932	RICHARDSON HOLDEN C	244/2
	K	US-1,912,723 A	06-1933	PERKINS WILLIS J	244/63
	L	US-2,844,340 A	07-1958	DANIELS CHARLES J; et. al.	244/110C
	M	US-5,509,624 A	04-1996	Takahashi, Masakatsu	244/115

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	C	US-4,067,139 A	01-1978	Pinkerton et al.	446/31
	D	US-D256,816 S	09-1980	McMahon et al.	D21/449
	E	US-5,655,944 A	08-1997	Fusselman, Robert M.	446/67
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